## CLAIMS

 A column spacer for maintaining a gap between two glass substrates at a constant distance in a liquid crystal display element,

which comprises an elastic modulus of 0.2 to 1.0 GPa in compressing by 15% at 25°C.

The column spacer according to claim 1,
 wherein an elastic modulus in compressing by 15% at 60°C is 0.13 to 0.65 GPa.

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- The column spacer according to claim 1, wherein an elastic modulus in compressing by 15% at 15 120°C is 0.1 to 0.5 GPa.
- The column spacer according to claim 1,
   wherein a rate of change of the elastic modulus in
   the fifth compression relative to the elastic modulus in
   the first compression is 5% or less when a compression test
   of compressing by 15% at 25°C is performed repeatedly.
- 5. The column spacer according to claim 1, wherein an initial compression elastic modulus E<sub>25</sub> in compressing by 15% at 25°C and a compression elastic modulus E<sub>120</sub> in compressing by 15% at 25°C after compressing by 15% at 120°C satisfy the relationship of the following equation (1):

 $\{(E_{120}-E_{25})/E_{25}\}\times 100 \le 10$  (1).

6. The column spacer according to claim 1, wherein a rate of recovery in deforming by compressing by 15% at 25°C is 70% or more.

7. A liquid crystal display element obtained by

using the column spacer according to claim 1, 2, 3, 4, 5 or 6.

A column spacer for maintaining a gap between two
 glass substrates at a constant distance in a liquid crystal display element,

which comprises a coefficient of linear expansion of  $1\times10^{-4}$  to  $5\times10^{-4}$ /°C at a temperature range of 25 to 100°C.

- 9. A liquid crystal display element obtained by using the column spacer according to claim 8.
  - 10. A curable resin composition for a column spacer to be used for producing a column spacer of a liquid crystal display element,

which comprises an alkali-soluble high polymer compound having a reactive functional group, a compound having a difunctional or more functional unsaturated bond and a photoreaction initiator.

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11. The curable resin composition for column spacers according to claim 10,

wherein an amount of the compound having a difunctional or more functional unsaturated bond to be mixed is 100 to 900 parts by weight with respect to 100 parts by weight of the alkali-soluble high polymer compound having a reactive functional group.

12. The curable resin composition for a column30 spacer according to claim 10,

wherein the alkali-soluble high polymer compound having a reactive functional group is an alkali-soluble (meth) acrylic copolymer having a (meth) acrylic group and a carboxyl group on a side chain.

13. The curable resin composition for a column spacer according to claim 12,

wherein the alkali-soluble (meth)acrylic copolymer having a (meth)acrylic group and a carboxyl group on a side 5 chain is a polymer having a main chain comprising of at least a constituent unit having an acid functional group and a constituent unit having a hydroxyl group, and a radical polymerizable group-containing isocyanate compound is coupled to at least a part of the acid functional group in the form of an amide bond and/or coupled to at least a part of the hydroxyl group in the form of a urethane bond via an isocyanate group of the isocyanate compound, respectively.

15 14. The curable resin composition for a column spacer according to claim 12,

wherein the alkali-soluble (meth)acrylic copolymer having a (meth)acrylic group and a carboxyl group on a side chain is a copolymer consisting of each structural unit expressed by the following formulas (la), (lb), (lc), (ld) and (le);

[Chem. 1]

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$$\begin{array}{c}
-\left(-CH_2-CR^1\right)_{a} \\
COOR^2
\end{array} (1 a)$$

$$\begin{array}{c}
-\left(-CH_2-CR^1-\right)_{b} \\
R^3
\end{array} (1 b)$$

$$\begin{array}{c}
-\left(-CH_2-CR^1\right)_{c} \\
COOH
\end{array} (1 c)$$

in the formulas (1a), (1b), (1c), (1d) and (1e),  $A^1$  and  $A^2$ 

represent a hydrogen or a following formulas (2a), (2b), (2c) or (2d), and when either of A¹ or A² is a hydrogen, the other is any one of the following formulas (2a), (2b), (2c) and (2d), and R¹ represents a hydrogen and/or a methyl group, R² represents an alkyl group, a phenyl group containing an alkyl group or an alkoxy group, a hydroxyalkyl group or an alicyclic hydrocarbons, R³ represents a nitrile group or a phenyl group, R⁴ represents an alkyl group, a hydroxyalkyl group or radical

10 polymerizable group-containing aliphatic hydrocarbons, and a, b, c, d and e represent mole ratios (%) of the respective components, and when a+b+c+d+e = 100, a, b and d are 0 to 90, c is 5 to 50 and e is 5 to 60;

$$A^1, A^2: \quad ---R^4 \tag{2 a}$$

[Chem. 2]

$$\begin{array}{c|c}
-C - N - R^4 \\
\parallel & \parallel \\
0 & H
\end{array}$$
(2b)

$$---CH_2--CH---CH_2--O---R^4$$
 (2 d)
OH

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15. The curable resin composition for a column spacer according to claim 14,

wherein  $A^1$  and/or  $A^2$  is expressed by the formula (2b).

16. The curable resin composition for a column spacer according to claim 14,

wherein  $A^1$  and/or  $A^2$  is expressed by the formula (2b) and  $R^4$  in the formula (2b) is a radical polymerizable group-containing aliphatic hydrocarbon.

17. The curable resin composition for a column spacer according to claim 14,

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wherein  $A^1$  and  $A^2$  are expressed by the formula (2c) 10 or (2d).

18. The curable resin composition for a column spacer according to claim 10,

wherein the alkali-soluble high polymer compound

15 having a reactive functional group is a copolymer

containing unsaturated carboxylic acid and/or unsaturated

carboxylic anhydride, and a blocked isocyanate group
containing unsaturated compound.

20 19. The curable resin composition for a column spacer according to claim 18,

wherein the copolymer containing unsaturated carboxylic acid and/or unsaturated carboxylic anhydride, and a blocked isocyanate group-containing unsaturated compound, further contains a hydroxyl group-containing unsaturated compound.

20. The curable resin composition for a column spacer according to claim 10,

wherein the alkali-soluble high polymer compound having a reactive functional group is an alkali-soluble (meth)acrylic copolymer having an epoxy group on a side chain.

21. The curable resin composition for a column

spacer according to claim 10,

wherein the compound having a difunctional or more functional unsaturated bond is a trifunctional or more functional caprolactone modified (meth) acrylate compound.

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- 22. The curable resin composition for column spacers according to claim 10, wherein the compound having a difunctional or more functional unsaturated bond is a compound having a polymerizable unsaturated bond and having a polyethylene glycol skeleton.
- 23. The curable resin composition for a column spacer according to claim 10,

which further comprises a thermal cross-linking agent

15 having a functional group capable of doing cross-linking
reaction with the alkali-soluble high polymer compound
having a reactive functional group.

24. The curable resin composition for column spacers 20 according to claim 23,

wherein the thermal cross-linking agent having a functional group capable of doing cross-linking reaction with the alkali-soluble high polymer compound having a reactive functional group is a thermal cross-linking agent having two or more blocked isocyanate groups.

25. The curable resin composition for a column spacer according to claim 23,

wherein the thermal cross-linking agent having a

functional group capable of doing cross-linking reaction
with the alkali-soluble high polymer compound having a
reactive functional group is a thermal cross-linking agent
having two or more epoxy groups.

26. A column spacer, obtained by using the curable

resin composition for a column spacer according to claim 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 or 25.

5 27. A liquid crystal display element, obtained by using a column spacer according to claim 26.